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APPLICANT : HITACHI LTD;

INVENTOR : IKEUCHI KAZUO;

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TITLE : MANUFACTURE OF MOVING VANE FOR TURBINE

ABSTRACT : PURPOSE: To manufacture a moving vane for a turbine causing no dimensional change and having stable strength by welding a shielding plate to a vane formed from a cast Ti-Al-V alloy and by simultaneously subjecting the vane to aging and strain relief annealing.

CONSTITUTION: A Ti alloy consisting of 5.50~6.75wt% Al, 3.50~4.50wt% V and the balance Ti with inevitable impurities is melted, cast and stamp-forged to form a moving vane for a steam turbine. A shielding plate for preventing erosion is welded to the moving vane and the vane is simultaneously subjected to aging and strain relief annealing without passing through a soln. heat treatment stage. By this method, the strength is made uniform, the residual stress after the welding is relieved and a moving vane for a turbine causing no dimensional change and having stable quality is obtd.

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